

Amendments to and Listing of the Claims:

Please amend the claims as follows:

Claim 1 (previously presented) A coated substrate having a thin film optical coating, the coating having a layer comprising a sol-gel derived niobium oxide, wherein the layer is capable of providing an index of refraction of at least about 1.90.

Claim 2 (original) The coating according to claim 1, wherein the niobium oxide layer is a low-temperature cured niobium oxide layer.

Claim 3 (canceled)

Claim 4 -10 (canceled)

Claim 11 (currently amended) A coated substrate having a thin film optical coating in accordance with claim 1, wherein the substrate has a melting point temperature less than or equal to about 450° C and is selected from the group consisting of acrylics, polyalkylenes, polycarbonates and polystyrenes.

Claim 12 (previously presented) A coated substrate having a thin film optical coating, the coating having a layer comprising a sol-gel derived oxide system, the sol-gel derived oxide system comprising niobium oxide, silicon dioxide and aluminum oxide, wherein the layer is capable of providing an index of refraction of from about 1.60 to about 1.90.

Claim 13 -18 (canceled)

Claim 19 (previously presented) A coated substrate having a thin film optical coating in accordance with claim 12, wherein the substrate has a melting point temperature less than or equal to about 450° C.

Claim 20 (previously presented) An optical filter comprising a thin film optical coating produced by:

(a) immersing the substrate in a mixture comprising niobium chloride, a silicon precursor, an aluminum precursor, and an alcohol, wherein the molar ratio of niobium to silicon is from about 0.9:1 to about 3.6:1 and the molar ratio of niobium to aluminum is from about 0.8:1 to about 3.0:1;

(b) withdrawing the substrate from the mixture to provide the substrate with a coating of the mixture; and

(c) heat-treating the substrate to form a layer having an index of refraction of from about 1.60 to about 1.90.

Claim 21 (canceled)

Claim 22 (previously presented) A coated substrate having a thin film optical coating, the coating having a layer comprising a sol-gel derived niobium oxide, wherein the layer is capable of providing an index of refraction of at least about 1.90 and the layer comprising niobium oxide further comprises a second oxide selected from the group consisting of silicon dioxide and aluminum oxide, wherein the second oxide is present in the layer in a mole fraction of up to about 0.55 based on the total moles of niobium oxide and the second oxide in the layer.

E | Claim 23 (previously presented) A thin film optical coating for use on a substrate, having a layer comprising a sol-gel derived oxide system, the sol-gel derived oxide system comprising niobium oxide, silicon dioxide and aluminum oxide, wherein the layer is capable of providing an index of refraction of from about 1.60 to about 1.90 and the niobium oxide is present in the layer in a mole fraction of from about 0.22 to about 0.53, the silicon dioxide is present in the layer in a mole fraction of from about 0.29 to about 0.49, and the aluminum oxide is present in the layer in a mole fraction of from about 0.17 to about 0.29, each mole fraction being based on the total moles of niobium oxide, silicon dioxide and aluminum oxide in the layer.

Claim 24 (previously presented) The coating in accordance with claim 12, wherein the niobium oxide is present in the layer in a mole fraction of from about 0.22 to about 0.53, the silicon oxide is present in the layer in a mole fraction of from about 0.29 to about 0.49, and the aluminum oxide is present in the layer in a mole fraction of from about 0.17 to about 0.29, each mole fraction being based on the total moles of niobium oxide, silicon oxide and aluminum oxide in the layer.
